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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,559	10/24/2005	John P. Wikswo	14506-48686	9529

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EXAMINER	
LAM, ANN Y	

ART UNIT	PAPER NUMBER
1641	

MAIL DATE	DELIVERY MODE
06/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/525,559

Applicant(s)

WIKSWO ET AL.

Examiner

Ann Y. Lam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) 1-41 and 50-57 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 46-49 and 4243 is/are rejected.
- 7) ☒ Claim(s) 44 and 45 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

Claim 44 is objected to because of the following informalities: "it" in line 3 should be --the first and the second filters--. (This would make it clearer as to what constitutes "it".) Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 45 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not clear whether or not the "seed biological cells" in claim 45, line 4, is the same as the "biological cells" in line 14, claim 42 (claim 45 depends from claim 42). (If they are the same then it is not clear how the "biological cells" are confined in the confinement region, as recited in claim 42, line 14, but are only allowed to perfuse outside the confined region, as recited in claim 45.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 42-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Nelson et al., 4,391,151.

Nelson et al. disclose the claimed invention because Nelson et al. disclose an air sampler that sucks up air through inlet (40) (inlet 40 is deemed to be the claimed first connection channel, and the opening in the inlet is deemed to be the inlet port) into a chamber (19) and cascade filters (34 and 41) and out a suction outlet (col. 3, lines 40-46 and figures 1-3) (the suction outlet is deemed to be the claimed second connection channel, and the opening in the suction outlet leading outside of device 10 is deemed to be the outlet port). The device (10) is deemed to be the first substrate, and the inlet (40) and suction outlet (including their ports) and chamber (19) are all formed in the device (10).

As to claim 43, the filters (34 and 41) are proximate and parallel to each other (see figure 1).

Claims 42-43 and 47-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Campbell et al., 6,168,914.

As to claims 42 and 43, Applicants' claims read on the embodiment of figure 12 of Campbell et al. The membranes (126) are deemed to be the claimed filter since they act as filters, allowing fluid to pass through. Since there is no requirement in the claims that the first substrate be one continuous piece, the top and lower elements (130) and membranes (126) when clamped together (col. 17, lines 20-36) are deemed to form the claimed first substrate. Any one of the channels formed upon clamping the device together is considered to be the claimed chamber. The hole (134) of the lower element (130) is deemed to form the claimed inlet port (i.e., opening) and first connection channel. The hole (134) of the upper element (130) is deemed to form the claimed outlet port (i.e., opening) and second connection channel. The holes (134), elements (130) and membranes (126) are all formed in the first substrate because they are part of the first substrate.

As to claim 47, element (132) is deemed to be the claimed second substrate.

As to claim 48, the outer perimeter of the channel (hole 134) at the top of the upper element (130) is deemed to be the supporting member positioned outside the confined region of the chamber (i.e., the channel formed upon clamping the device together) for supporting the second substrate.

As to claim 49, the inner perimeter of the channel at the top of the channel (hole 134) at the top of the upper element (130) is deemed to be the supporting member

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positioned inside the confined region of the chamber (i.e., the channel formed upon clamping the device together) for supporting the second substrate.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson et al., 4,391,151, in view of Lee et al., 6,506,345.

Nelson et al. teach the invention substantially as claimed (see above), except for the first substrate being formed of glass or a polymer.

Lee et al. however teach an air sampler made of any inert material such as glass or plastic, and that it is preferable that the material be translucent such as glass in order to provide a visual checking of the operation of the system (col. 6, lines 23-26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the first substrate in the Nelson et al. air sampler from glass or a plastic because Lee et al. teach that these materials are useful in forming an air sampler because they are inert and also because Lee et al. further teach that materials such as glass provide the benefit of visual checking of the operation of the system.

Allowable Subject Matter

Claim 44 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 45 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ann Y. Lam whose telephone number is 571-272-0822. The examiner can normally be reached on Mon.-Fri. 10-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on 571-272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



ANN YEN LAM
PATENT EXAMINER